

Program Letter

Bureau of Storage Tank Regulation
October 2000

Establishing Setback Alternatives at Bulk Plant Facilities

It is becoming more apparent that transport load/unload and loading rack setbacks at bulk plants have been misinterpreted and misapplied throughout the industry. Items such as the following, along with how the department determines appropriate compliance, are developing into significant controversial issues during and after the plan review and installation inspection process.

- ◆ Setbacks from transport unloading facilities to storage tanks
- ◆ Loading rack facilities to storage tanks
- ◆ Setbacks from transport unloading to Class II product tanks when Class I products are handled within the same transport unloading facility
- ◆ Setbacks from loading rack to Class II product tanks when Class I products are handled within the same transport loading rack facility

Comm 10 applies NFPA 30, 5-4.4.1.1, 1987 edition (section 5-6.3.1, 1997 edition) national standard when addressing these setback requirements.

(1997 edition) Tank vehicle and tank car loading and unloading facilities shall be separated from aboveground tanks, warehouses, other plant buildings, or the nearest line of adjoining property that can be built upon by a distance of at least 25 ft (7.6 m) for Class I liquids and at least 15 ft (4.6 m) for Class II and Class III liquids, measured from the nearest fill spout or transfer connection. These distances shall be permitted to be reduced if there is suitable protection for exposures. Buildings for pumps or shelters for personnel shall be permitted to be a part of the facility.

The reason for the separation is to increase the chance for controlling a fire originating at a tank vehicle before it spreads to nearby tanks or buildings. It is important to note that the "protection for exposure" as applied in NFPA 30 (definitions), refers to adjacent property, not the property on which the product is stored.

If any of these facilities handles Class I liquids along with Class II or III, the setback requirement falls with the most stringent application. The setback is from *any* storage tank, warehouses, other facility buildings, or the nearest line of adjoining property that can be built upon. As stated in the commentary section of NFPA 30-5-4.4.1.1 1987 edition (section 5-6.3.1 1997 edition):

The separation distances specified here take precedence over those specified elsewhere in the code. As noted, the Authority Having Jurisdiction (AHJ) may allow reduced separation where there is suitable protection for exposures.

As the bureau has addressed bulk plant upgrades, an alternative reduction in setback has been established during the plan review process through dialog between the plan review official, the owner and contractor. The reduction in setback has been implemented and formalized solely by incorporating the alternative in the Conditional Plan Approval as determined by the plan review official acting as the AHJ. An issue has developed regarding how the alternatives to setback decisions are made and where the ultimate AHJ designation is between plan review and field inspection. The division has determined that a formal Petition For Variance will resolve the existing concerns, maintain consistency with the code, and provide a formal and descriptive process in establishing reduced setbacks through suitable protection for exposures. This

program letter and policy will not apply to alternate setbacks determined to be adequate through the review of plan submittals conditionally approved prior to October 1, 2000.

The department shall consider and may grant a Petition For Variance (PFV) to an administrative rule upon receipt of a completed Petition For Variance form from the owner, and a position statement from the fire department having responsibility, provided an equivalency is established in the petition for variance which meets the intent of the rule being petitioned. The department shall charge a fee for processing the petition for variance. The department may impose specific conditions in a petition for variance to promote the protection of the health, safety or welfare of the employees or the public. Violation of those conditions under which the petition is granted shall constitute a violation of Chapter Comm 10 and Comm 3. (PFV form ERS-9890-A is available from Internet web site www.commerce.state.wi.us/ER-Fm-ERS-9890A-PFV.pdf)

In practical application what does this mean:

- ◆ A PFV is evaluated on the information provided without assumptions. The department has 30 business days to review a PFV. The submitter of the petition is expected to have conducted the preliminary research and discussion with department technical staff, and descriptively provided the pertinent information on the PFV submittal for evaluation.
- ◆ Diagrams and photos are very helpful to the PFV reviewer.
- ◆ PFV fee is \$200 and must be submitted with the PFV.
- ◆ Plan review approval timelines are dependent upon the PFV and the 15 business days as reflected in Comm 10.10(3) may not apply.

Note: Existing bulk plant facilities with clearances less than required in NFPA 30 may be renovated or updated, but no additional storage capacity shall be permitted in violation of those specified clearances.